# FLOOD HAZARD INFORMATION





# FLOOD HAZARD AREA

Miami Beach is a barrier island city. The majority of the properties within the City of Miami Beach are located within the "Special Flood Hazard Area." Miami Beach's occasional heavy rains and flat terrain often lead to flooding, some areas flood with a high tide and west wind.

Urban areas can greatly affect the natural drainage patterns. Increased amounts of pavement also reduce the ability for rainwater to be absorbed, increasing the volume of runoff. Precipitation from a heavy rain can cause urban flood. In some cases, this type if flood can be devastating to the local area but may not qualify for federal or state assistance. In these cases, flood insurance may be the only financial assistance consumers can get other than personal loans. For example, the June 5, 2009 event dumped nine inches of rain in less than three hours in Miami Beach and led to severe flooding.

# FLOOD ZONE MAP

The Building Department maintains a flood zone map that is available to the public. The Flood Insurance Rate Map (FIRM) is an essential product of the Flood Insurance Study, which shows a community base flood elevations, flood zones, floodplain boundaries and flood data for both floodplain management and insurance rating programs. The FIRM zones designations are based on 100-year flood. The 100-year flood is also referred to as Base Flood Elevation (BFE). You can also view your property Flood Zone at Miami-Dade County website

http://www.co.miami-dade.fl.us/derm/flood zone maps.asp.

Properties in the Zones AE and VE fall within the 100-year floodplain. These zones are Special Flood Hazard Area (SFHA), and flood insurance is required on all properties with federally backed programs.

Properties in Zone X fall in the 500-year floodplain that is shown in red color area in the City of Miami Beach Flood Zone Map. Flood insurance is not required by the federal government for properties in Zone X; however, the insurance companies and/or lenders may require flood insurance.

#### FLOOD INSURANCE

Homeowner's insurance policies do not cover damages and losses due to flooding. The City of Miami Beach participates in the National Flood Insurance Program (NFIP) that makes flood insurance available to everyone in the City. We strongly urge you to buy flood insurance to protect yourself from a devastating loss.

Information about flood insurance policies should be available to you through your insurance agent. Call your insurance agent now so that you will be prepared for future events. Do not wait for a disaster to devastate your family. Please be advised that there is a standard 30-day waiting period, from the date or purchase, before a new flood policy goes into effect.

#### FLOOD PLAIN DEVELOPMENT

All developments or improvements including but not limited to: new construction, repairs and/or replacement work, additions, regrade or put in fill and tree removal require a permit. Failure to obtain a permit may result in an unsafe structure, fines, and possible court action. Please contact the Building Department should you see development without properly displayed permits.

### PROPERTY PROTECTION AND SAFETY

Every year, flooding causes more property damage in the United States than any other type of natural disaster. While recent construction practices and regulations have made new homes and those undergoing substantial improvement or damage less prone to flooding, many existing structures remain susceptible.

**In the event of flood threats**, it is advisable to take the following emergency actions:

- 1. Elevate furniture above flood protection levels;
- 2. Sandbags can be placed to help slow flood water from reaching your possessions;
- 3. Create flood way openings in non-habitable areas (eg. garages, storage areas) and make sure that their openings are not obstructed.
- 4. Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- 5. Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.

**RETROFITTING** is a unique approach to reduce flooding. There are several retrofitting methods that protect your property from flooding:

- **Elevation** is elevating the structure so that the lowest floor is above flood protection levels. Elevate electrical panel boxes, furnaces, water heaters, washers, dryers, air conditioners and generators above flood protection levels.
- Wet flood proofing makes uninhabited parts of the structure resistant to flood damage when water is allowed to enter during flooding.
- **Relocation** means moving the structure to higher ground where the exposure to flooding is eliminated altogether.
- Levee and floodwall protection means construction barriers to prevent floodwaters from entering your property.
- Dry flood proofing (non-residential) is sealing the structure to prevent floodwaters from entering.

The Building Department – Governmental Compliance Division personnel can assist customer on these techniques. Additional information on retrofitting is available at <a href="http://www.fema.gov/library/viewRecord.do?id=1420">http://www.fema.gov/library/viewRecord.do?id=1420</a>, <a href="http://www.disastersafety.org/publications/view.asp?id=12934&cid=1051">http://www.disastersafety.org/publications/view.asp?id=12934&cid=1051</a>

## STORM WATER SYSTEM

Storm water is the rain water that flows over lawns, sidewalks, and streets. As this water flows over these surfaces it picks up debris, fertilizers, auto fluids, and other pollutants before entering into the storm water system and eventually draining into Biscayne Bay. Miami Beach's storm water system has two primary objectives: to provide pollutant removal and flood protection.

Storm water runoff contains sediments, excess nutrients, heavy metals, and floatable pollutants. These pollutants can be captured through pollution control devises such as sedimentation boxes and grassy swales installed throughout the city. Swales are vital since the water flowing through them also serve as a retention area and drain the city's streets to prevent flooding. If swales become covered with impervious materials such as concrete or unapproved landscaping, water will not drain the rain water off the street.

There are times that the storm water cannot be discharged by gravity alone and injection well systems are used to pump the rain water deep underground. As part of the City's capital improvement program, hundreds of drainage structures including wells, pollution control boxes, swales, catch basins, and conveyance pipes are being installed throughout the city.

The Federal Clean Water Act prohibits dumping into waters of the U.S. Should you witness illegal dumping in storm drains and waterways, please report the violation to the Public Works Department's Environmental Division.

### NATURAL & BENEFICIAL FUNCTION

State regulations protect those natural areas that help to reduce the risks associated with flooding. When portions of floodplains are preserved in their natural state, they provide many benefits to both human and natural systems. These benefits range from providing aesthetic pleasure to reducing the number and severity of floods, helping handle storm-water runoff, and minimizing non-point water pollution. Additional information is available at <a href="http://www.sfwmd.gov">http://www.sfwmd.gov</a>.

### SUBSTANTIAL DAMAGE/IMPROVEMENT

The following definitions may facilitate you in determining if you fall under the 50 percent rule:

**Substantial Improvement:** Any reconstruction, rehabilitation, addition, or other improvement of a structure taking place during a five-year period, in which the cumulative cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction."

**Substantial Damage:** Damage of any origin sustained by a structure whereby the cost of restoring the structure to it before damaged condition would equal or exceed 50 percent of the market value of the structure before the damaged occurred. This term also includes "repetitive loss" structures.

All new construction, reconstruction, rehabilitation, additions, repairs to substantially damaged properties, and substantial improvements to a structure that equals or exceeds 50 percent of the buildings market value are required to meet current floodplain management requirements.

## HURRICANE SAFETY

A hurricane is an intense weather system of strong thunderstorms with a well-defined surface circulation with sustained winds of 74 mph or higher. Dangerous storm surges and flooding are also associated with hurricanes. As a barrier island, Miami Beach is located in an evacuation zone. A complete hurricane guide is available in English and Spanish for Miami Beach residents.

In the event of a hurricane evacuation, it is advisable to take the following emergency actions:

- 1. Residents that require special care and/or special transportation need to register with the Miami-Dade County (MDC) Emergency Evacuation Assistance Program immediately at 305.513.7700 or 305.468.5402 TDD (hearing impaired).
- 2. Know where you plan to go. Hurricane shelters will open on the mainland and transportation is provided by Miami-Dade Transit at marked locations throughout the city. Take an emergency suitcase with you.
- 3. Make plans ahead of time for the pets to stay at a kennel or with friends/family or a Miami-Dade County pet-friendly evacuation center. To register, call Miami-Dade County's Answer Center at 3-1-1. However, this does not guarantee placement.
- 4. Before evacuating, turn off all utilities at the main power switch; close off any gas valves; and bring outdoor belongings inside.
- 5. Install storm shutters for all windows (Do NOT tape windows) and exterior doors and reinforced garage doors.
- 6. Do NOT place any waste on curb or in commercial garbage containers for collection.
- 7. Expect to be without electricity for at least two weeks when you return; ensure that you have enough water, food and medications to survive that period of time.
- 8. Have a plastic bag with your flood insurance policy and a list of your possessions in a safe place.
- 9. Have battery operated flashlight, radios, and televisions in working condition tuned to the local broadcast stations.
- 10. After a storm, do not walk or drive through a flooded area.
- 11. Stay away from downed power lines and electrical wires. Report downed power lines to 1.800.4.OUTAGE.

# STAY INFORMED

The National Weather Service monitors local weather conditions. If a hurricane or an urban flood advisory is expected the National Weather Service communicates warning notices through the local broadcast stations (television and radio; check local listings).

Hurricane advisories, when issued, are also posted on the City's Web site (<a href="www.miamibeachfl.gov">www.miamibeachfl.gov</a>), MBTV-77 (Atlantic Broadband), MBRadio 1670AM, and communicated through social media (Facebook/CityofMiamiBeach and Twitter/MiamiBeachNews). You can also subscribe to receive information concerning your neighborhood via e-mail and emergency notices via Reverse 9-1-1.

**MAP** (Available in the Building Department) **ZONE AE** : Base Flood Elevation determined.

**ZONE VE**: Coastal flood zone with velocity hazard (wave action); Base Flood Elevation determined.

**ZONE X**: Areas determined to be outside the 0.2% annual change floodplain.

#### PHOTO:

Flooding in Miami Beach on June 5, 2009 (photo courtesy of Eric Blake, NWS)

#### CITY OF MIAMI BEACH

1700 CONVENTION CENTER DRIVE MIAMI BEACH, FL 33139 www.miamibeachfl.gov

# **BUILDING DEPARTMENT**

Flood Hazard Information | Governmental Compliance Division  $305.673.7000\ x6165\ |\ 305.673.7610$ 

# PUBLIC WORKS DEPARTMENT

Environmental Division 305.673.7080

### OTHER HELPFUL WEBSITES

Miami Beach: www.miamibeachfl.gov

Miami-Dade County: http://www.miamidade.gov/

South Florida Water Management District: http://www.sfwmd.gov/

Federal Emergency Management Agency: http://www.fema.gov/library/viewRecord.do?id=1420

American Red Cross: http://www.redcross.org/

http://www.disastersafety.org/publications/view.asp?id=12934&cid=1051

http://www.floodsmart.gov/ http://www.ready.gov/ http://www.floods.org/

To request this material in accessible format, sign language interpreters, information on access for persons with disabilities, and/or any accommodation to review any document or participate in any city-sponsored proceeding, please contact 305-604-2489 (voice) or 305-673-7218 (TTY), five days in advance to initiate your request.